



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/596,418

09/01/2006

Rainer Mueller

A8465PCT-UT

6396

43749 7590 08/04/2010
CHRISTOPHER PARADIES, PH.D.
FOWLER WHITE BOGGS P.A.
501 E KENNEDY BLVD, STE. 1700
TAMPA, FL 33602

EXAMINER

O'HARA, BRIAN M

ART UNIT

PAPER NUMBER

3644

MAIL DATE

DELIVERY MODE

08/04/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,418	Applicant(s) MUELLER ET AL.	
	Examiner Brian M. O'Hara	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/21/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment to the claims filed 05/07/2010 is objected to because Claim 1 has not been provided with the proper status identifier. Claim 1 appears to be the same as Claim 1 filed on 08/07/2009 but it has been marked as "Currently amended". Additionally, the same language has been underlined and struck-through as in the previous amendment; thus making the current amendment "Previously presented". Claim 1 is being treated on the merits as filed 05/07/2010.

Information Disclosure Statement

2. The information disclosure statement filed 07/21/2010 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information which has been crossed out referred to therein has not been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-4, 7, and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wulliman et al. (US Patent 6,627,561 B1) in view of Cota (US**

Art Unit: 3644

6,177,157 B1). Regarding independent **Claim 1**, Wulliman et al. discloses an insulation structure for an internal insulation of a vehicle, for arrangement in an intermediate space between an internal paneling (70) of the vehicle and an outside skin (66) of the vehicle, the insulation structure comprising: an insulation package (40) arranged in the intermediate space (See Fig. 14) between the internal paneling (70) of the vehicle and the outside skin (66) of the vehicle; an insulation core (42) embedded in the insulation package; and an outer film (24, or 44 and 46), the outer film having a film envelope (portion containing 42) and two hose-like end sections (Fig. 10 shows four hose like end sections; Fig. 11 shows two hose like end sections where 44 and 46 meet to the left and right of 42) formed at opposite ends of the film envelope (left and right sides of package 40 shown in Fig. 11), each of the two hose-like end sections being outside of the film envelope and on opposite outer edges of the outer film (as shown in Fig. 11), respectively, and extending beyond an outer periphery of the insulation package,

However, Wulliman et al. does not disclose folding the hose-like end section into a Z-shape. Cota teaches an insulation package (thermal shields insulate spacecraft from aerodynamic heating) comprising hose-like end sections (140) forming a flat Z-fold attachment section (See Fig. 4), having film fold regions laid on top of each other (158 and 170 are laid on top of the lower portions). At the time of invention, it would have been obvious to one of ordinary skill in the art to provide the hose like end sections of Wulliman et al. with a flat Z-fold attachment section as taught by Cota. The motivation for doing so would have been to create a seal between the outside of the insulation package and the insulation core.

Art Unit: 3644

5. Regarding **Claims 2-4 and 7**, Wulliman et al. teaches an insulation structure (40) including: an outer film made of material of high and permanent fire resistance (22); a film reinforcement region (24) applied on an external surface of a portion of the outer film; the external surface is directed toward the outside skin of the vehicle (24 would be on both sides of the insulation package); wherein the outer film forms a fire barrier (See Table in Columns 13 and 14).

6. Regarding **Claims 11-17**, the use of a plurality of layers as taught by Wulliman et al. (See 24 and 28 in Fig. 7) combined with the insulation structure and shape of Cota would inherently result in an inner film which would take on the shape of the outer film as taught by Cota; including the opposite hose-like end sections, Z-fold attachment sections, complete enveloping of the insulation package, continuous attachment sections being attached to continuous insulation packages (as shown below element 68 in Wulliman et al.), burn through safe (See Table in Columns 13 and 14 of Wulliman et al.).

7. **Claims 8-10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wulliman et al. and Cota as applied to claim 1 above, and further in view of Sanocki et al. (US Patent 5,759,659 A).** Wulliman et al. and Cota disclose the insulation structure as described above, but do not disclose the use of ceramic fibers. Sanocki et al. discloses using ceramic fibers as part of the fire barrier's high temperature-resistant layer (16). Sanocki et al. also discloses a through hole (20) for connecting the insulation structure to a vehicle. At the time of invention, it would have been obvious to provide the insulation package of Wulliman et al. and Cota with

Art Unit: 3644

the ceramic fibers disclosed in Sanocki et al. as part of the film reinforcement region.

The motivation for doing so would have been to make a stronger composite layer.

Response to Arguments

8. Applicant's arguments filed 05/07/2010 have been fully considered but they are not persuasive.

9. On Page 6, Lines 7-13, applicant argues that the combination of Wulliman and Cota is not proper because the references are nonanalogous to one another; more specifically because the Wulliman structure is directed toward a paper while Cota is directed toward plates. This argument is not found to be commensurate with the scope of the claims since Claim 1 only recites the limitation of a film. Both the paper of Wulliman and the plates of Cota can be considered to be films since they are being used as a coating or a covering for the internal insulation package.

10. On Page 6, Lines 14-16, applicant argues that Cota teaches away from the Z-fold of Fig. 4. This argument is not seen to be commensurate with the rejection set forth above and in the office action dated 01/07/2010. While Cota may teach an improvement on a folding technique, the rejection uses the z-fold structure shown in Fig. 4 which is clearly prior art to applicant's claimed invention.

11. On Page 7, Lines 1-3, applicant argues that neither Wulliman nor Cota disclose the limitation of: forming a compacted end body section for a Z-fold attachment section by application of both pressure and heat. Wulliman teaches the application of heat or ultrasonic sealable adhesive for securing the film to make an envelope (See Column 2, Lines 53-60) and any bending or folding of the film (as taught by Cota) inherently

Art Unit: 3644

incorporates the application of at least some pressure. Thus the combination of Wulliman and Cota as set forth above meets the limitation of: forming a compacted end body section for a Z-fold attachment section by application of both pressure and heat.

12. On Page 7, Lines 4-14, applicant argues further that Cota teaches away from the Z-fold structure. This argument is not seen to be commensurate with the rejection set forth above and in the office action dated 01/07/2010. The office action relies upon the fold (140) and associated elements shown in Fig. 4 of Cota.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian M. O'Hara whose telephone number is (571)270-5224. The examiner can normally be reached on Monday thru Friday 10am - 5pm except the first Friday of every Bi-week.

Art Unit: 3644

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Collins can be reached on (571)272-6886. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy D. Collins/
Supervisory Patent Examiner, Art
Unit 3644

/B. M. O./
Examiner, Art Unit 3644